

EXPLORING PREDICTORS OF DATING VIOLENCE VICTIMIZATION AMONG
ADOLESCENTS

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Mallory Taylor Rousseau

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major of Sociology.

Lisa Thrane, Committee Chair

Jodie Hertzog, Committee Member

Brien Bolin, Committee Member

ABSTRACT

This study explores factors that are predictive of dating violence victimization among 4,490 adolescents aged 11-17 years with public-use data from Waves I and II of the National Longitudinal Study of Adolescent to Adult Health. Individual-level factors included self-esteem, depressive symptoms, high-risk alcohol use, and marijuana use. Mesosystem factors included parental monitoring and religiosity. A logistic regression analysis controlled for sex, age, race, and sexual attraction. Results showed that higher levels of depressive symptoms and substance use were associated with an increased likelihood of victimization, whereas self-esteem was not significant. Higher levels of parental monitoring and religiosity were associated with a decreased likelihood of dating violence victimization, suggesting these may have a protective influence. These results have practical implications for violence prevention strategies with policy recommendations put forth to adapt existing healthy relationship education curricula to specific subgroups that may be at an increased risk for victimization.

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CHAPTER 1

INTRODUCTION

A growing recognition of violence between dating partners during adolescence, referred to as adolescent or teen dating violence (TDV), has emerged since victimization in adolescence can often precede adult victimization (Centers for Disease Control and Prevention [CDC], 2014). Teen dating violence has been identified by the Centers for Disease Control and Prevention as being a national public health concern due to the high rates of prevalence, and the potential for negative consequences in adulthood, including the continuation of abuse into adult relationships, as well as numerous negative health outcomes (2014).

Research indicates that the overall prevalence of TDV rates range from 9% to 57% of youth having experienced dating violence (Hamby & Turner, 2013; O’Keefe, 2005). While this figure does vary widely based on sample sizes and operationalization of terms, national-level data from the CDC’s Youth Risk Behavior Surveillance System (YRBSS) has found that of students in dating relationships within the past 12 months, 10.3% reported being hit, slammed into something, or injured with an object or weapon by a dating partner (Kann et al., 2014). In addition to sustaining injuries from physical abuse, victims of TDV are more likely than non-victimized peers to experience depression and anxiety, think about suicide, do poorly in school, and engage in risky health behaviors, including tobacco, alcohol, and drug use (CDC, 2014). Being a victim of partner violence results in significant psychological and behavioral consequences and has been shown to lead to lowered self-esteem (Carlson, 1987; Coker et al., 2002; Heise & Garcia-Moreno, 2002), suicidal behaviors and self-harm, as well as anxiety, depression, and symptoms of post-traumatic stress (Coker et al., 2002; Heise & Garcia-Moreno,

2002). As such, adolescents who are or have been involved in abusive dating relationships sustain a broad spectrum of emotional, physical, and psychological impacts from victimization.

When considering the prevalence of physical abuse as distinguished from sexual or emotional abuse, it is important to note that physical violence is typically accompanied by emotional or psychological abuse (Tjaden & Thoennes, 2000). Physical abuse does not exist in a vacuum, but is rather a symptom of other forms of abuse. As such, the pervasiveness and significant long-term health consequences of TDV highlight the need for further research in order to effectively engage in primary prevention initiatives that encourage healthy relationships and stop dating violence before it occurs.

The present study seeks to contribute applied solutions to existing literature on teen dating violence by exploring specific individual-level characteristics of adolescents that have been identified as being either a risk or protective factor for dating violence victimization. In particular, this study analyzes the influence of the following personal characteristics: self-esteem, depressive symptoms, and substance use (high risk alcohol use; marijuana use), as well as the influence of mesosystem factors, namely parental monitoring and religiosity, on predicting the likelihood of an adolescent becoming a victim of dating violence. In order to reach this aim, the current study relies on data drawn from Waves I and II of the National Longitudinal Study of Adolescent to Adult Health, commonly known as Add Health.

CHAPTER 2

LITERATURE REVIEW

2.1 Individual Factors

2.1.1 Self-Esteem

Research linking self-esteem and dating violence victimization is mixed. Self-esteem has been highlighted by various studies as demonstrating both risk and protective factors (Ackard & Neumark-Sztainer, 2002; O’Keefe & Treister, 1998; O’Keefe, 2005; Renner & Whitney, 2012). When accounting for differences in experiences of abuse (e.g. physical versus emotional versus sexual abuse), prior research has shown that in general “battered women experience lower self-esteem than nonbattered women” (Aguilar & Nightingale, 1994, p. 42).

In a study exploring predictors of onset and chronic physical and sexual dating violence victimization, Foshee et al. used the social ecological approach (2004). This study found that having low self-esteem is among the risk factors predictive of experiencing violence victimization for both males and females Foshee et al. (2004). Beginning with adolescents in 8th and 9th grades, this longitudinal study measured self-esteem using Rosenberg’s Self-Esteem Scale (Rosenberg, 1965) as a predictor variable for serious physical and sexual dating violence victimization. Physical dating violence was defined as any act likely to result in injury, such as choking, burning, hitting, and assault with a weapon. Sexual dating violence was measured as any incident of forced sex or other nonconsensual sex acts (Foshee et al., 2004).

While finding low self-esteem predictive of victimization, Foshee et al. (2004) revealed differences by gender in the type of victimization experienced. For males, having low self-esteem was predictive of physical dating violence victimization, whereas for females, having low self-esteem was predictive of experiencing sexual dating violence (Foshee et al., 2004). Within

the social ecological model, the study authors identified self-esteem as being an individual-level aspect of personal competencies that could be potentially modified so as to protect against violence victimization. The authors further highlighted these individual-level findings as being a possible site of interventions that address individual attitudes and perceptions, such as social norms supportive of violence and holding traditional gender stereotypes, which contribute to victimization (Foshee et al., 2004). Similarly, O’Keefe and Treister (1998; O’Keefe, 2005) showed that in comparison to male victims, female victims were more likely to report having low self-esteem, and that for females, having low self-esteem is a significant predictor of experiencing dating violence.

In support of these findings, a small-scale teenage dating survey conducted by Jezl, Molitor, and Wright (1996) at a religiously affiliated high school found that self-esteem and psychological maltreatment were also negatively correlated. That is, “lower levels of psychological maltreatment were experienced by subjects who had higher self-esteem ratings, and higher levels of psychological maltreatment were experienced by subjects who had lower self-esteem ratings” (Jezl et al., 1996, p. 82). The relationship between self-esteem and psychological maltreatment was significant for females, but not for males (Jezl et al., 1996), furthering the need for gender-specific analyses.

Furthermore, adolescent girls who remained in abusive relationships were found to have the lowest self-esteem measures compared to those who never experienced abuse in relationships, and to those who terminated abusive relationships (Jezl et al., 1996). In support of these findings, a survey of more than 80,000 ninth and twelfth grade students found that self-reported measures of emotional well-being and self-esteem were lowest for both males and females who reported having experienced both date violence and rape, compared to nonabused

peers, as well as to peers experiencing either date violence or rape only (Ackard & Neumark-Sztainer, 2002).

A secondary data analysis was conducted by Renner and Whitney (2012) using IPV at Wave III of the National Longitudinal Survey of Adolescent Health to explore risk factors associated with unidirectional (victimization only; perpetration only) and bidirectional (both perpetration and victimization) partner violence from adolescence to young adulthood (ages 18-27 years). Findings from this study revealed that in comparison to males who reported no IPV, having lower self-esteem at Wave I increased the likelihood of male perpetration, victimization, and bidirectional IPV (Renner & Whitney, 2012). In contrast, lower self-esteem actually reduced rates of IPV victimization among females, suggesting that there is a need to focus specifically on gendered differences in socialization and personal adjustment as being among the risk factors contributing to victimization (Renner & Whitney, 2012).

A recent cross-sectional study in Greece measured experiences of IPV in the past year as physical and sexual violence as well as emotional aggression, among roughly 1,000 opposite-sex cohabitating adults in urban areas. Using the Rosenberg Self-Esteem Scale (Rosenberg, 1965), this study found that low self-esteem increased physical violence victimization (Papadakaki et al., 2009). The study authors suggest that Greek societal norms may provide some explanation for this finding, particularly that gender-role socialization may influence emotional and material dependency in the context of cohabitation or marriage, such that the low self-esteem of abuse victims may preclude them from escaping an abusive relationship (Papadakaki et al., 2009). Based on findings across studies on self-esteem, it is predicted that low self-esteem will be associated with an increased likelihood of dating violence victimization.

2.1.2 Depressive Symptoms

Substantial research has been conducted to explore the relationship between depressive symptoms and IPV victimization (Foshee et al., 2004; O’Keefe, 2005; Vézina & Hébert, 2007). Using a longitudinal study design to examine psychosocial risk factors for IPV victimization among adolescents, Keenan-Miller, Hammen, and Brennan (2007) found significant associations between youth depressive symptoms and experiencing IPV. In particular, this study showed that females who have had at least one episode of depression before age 15 had an increased likelihood of becoming a victim of severe IPV by age 20 (Keenan-Miller, Hammen, & Brennan, 2007).

This coincides with Melander, Noel, and Tyler’s (2010) analysis of Add Health data from Waves I and III, which showed that depressive symptoms are a predictor for intimate partner violence. In their study, IPV was measured by asking participants about any perpetration or victimization of physical violence in the past year, and responses were combined and dichotomized. The resulting categories were bidirectional (mutual) violence; perpetration only; victimization only; and no violence. Findings from this longitudinal study showed that having higher levels of depressive symptoms were associated with an increased likelihood of being in a bidirectionally abusive relationship (Melander et al., 2010). Specifically, “people with higher depressive symptoms were almost twice as likely to be in a bidirectionally violent relationship” compared to those in non-violent relationships (Melander et al., 2010, p. 623).

In a longitudinal study exploring the association of depressive symptoms with physical and psychological aggression between relationship partners, Kim and Capaldi (2004) found that women’s depressive symptoms were strongly predictive of men’s concurrent physical and psychological aggression. Here, psychological aggression was measured by participants’

questionnaire responses and interview coding based on Straus' (1979) Conflict Tactics Scale, with items related to name-calling, insults, threats, and yelling (Kim & Capaldi, 2004). Findings showed that women's depressive symptoms were significantly predictive of men's psychological aggression over time (Kim & Capaldi, 2004).

The predictive relationship between depression and victimization is further evidenced by longitudinal research showing that for females reporting high rates of depressive symptoms, the likelihood of victimization is 1.86 times greater than that of females with lower reported rates (Lehrer, Buka, Gortmaker, & Shrier, 2006). Additionally, this study found that the likelihood of victimization continues to increase as the number of depressive symptoms increases (Lehrer et al., 2006). This research lends support to the important role of depressive symptomatology as a risk factor for violence victimization, furthering the relevance of the current study's aim. Based on these literature findings, it is predicted that increased depressive symptoms will be associated with an increased likelihood of dating violence victimization, such that having more depressive symptoms will increase an adolescent's risk of becoming a victim.

2.1.3 Substance Use

In continuing this review of the literature on factors that may influence outcomes of TDV victimization, substantial research exists that connects substance use to TDV. In a nationally representative study of approximately 15,000 high school students (grades 9-12), Centers for Disease Control and Prevention researchers measured physical dating violence as being any instance of a boyfriend or girlfriend hitting, slapping or physically hurting within the past year. Episodic heavy drinking was measured by asking respondents of any time in the past month that they had more than five alcoholic drinks in a row (Black, Noonan, & Legg, 2006). Findings from this 2003 Youth Risk Behavior Survey (YRBS) found that students who answered 'yes' to

having engaged in episodic heavy drinking in the past month were more likely to report physical violence victimization, supporting the need for primary prevention initiatives to promote healthy dating relationships (Black, Noonan, & Legg, 2006).

Prior research further suggests that there is an association between substance use and victimization, and that this association may vary by race (Nowotny & Graves, 2013). Using Add Health data from Waves III and IV, Nowotny and Graves' study categorized IPV as having four dimensions: minor violence, major violence, rape/sexual coercion, and injury, with minor violence being defined as any threats, pushing, shoving, or throwing, and major violence, including slapping, hitting, or kicking. Substance use was categorized as binge drinking, marijuana use, and drug use. Binge drinking included having five or more drinks during a single sitting at least two to three times a month in the past year. Marijuana and any other drug use (e.g. heroin, LSD) were asked separately for any time in the past year (Nowotny & Graves, 2013).

When comparing rates of substance use and IPV victimization among women, binge drinking and drug use was shown to increase the likelihood of Latina and African American women experiencing IPV (Nowotny & Graves, 2013). In particular, drug use – but not marijuana use – among African American women increased the likelihood of experiencing injury due to violence victimization by a factor of 8.6, and by a factor of 4.3 for Latina women (Nowotny & Graves, 2013). Interestingly, marijuana use among African American women decreased the likelihood of any victimization (Nowotny & Graves, 2013). The study authors suggest that different racial groups may have different strategies for coping with physical victimization, and that differing pharmacological effects of various substances, along with “subcultural norms” for marijuana use may help explain this variation (Nowotny & Graves, 2013).

A study of approximately 1,500 high school students conducted by Temple and Freeman (2011) found that the likelihood of dating violence victimization was significantly higher for teens that drank alcohol and smoked cigarettes in the past month than for their non-drinking, non-smoking peers. Even further, this study found that adolescents who engaged in both alcohol and controlled substance use (i.e. Vicodin, Xanax, Ecstasy) were 3.5 times more likely to report dating violence victimization than non-users, with dating violence being defined as any instance of being hit, slapped, or physically hurt on purpose by a boyfriend or girlfriend in the past year (Temple & Freeman, 2011). However, the authors propose that the relationship between substance use and violence could be affected by a third underlying variable, such as personality disorders or childhood maltreatment (Temple & Freeman, 2011).

Secondary analysis of YRBS data has further shown that female youth who had ever drank alcohol and or ever smoked marijuana are at increased odds of victimization, compared to girls who have never drank or used marijuana. Additionally, this study found that students who initiated alcohol use at age 13 or older were significantly less likely to report dating violence victimization than those students who began drinking alcohol prior to age 13. For female students in particular, early alcohol use (before age 13 years) was associated with an increased likelihood of victimization in comparison to peers who began drinking after age 13. The study authors suggest that early initiation of risk behaviors places youth at a higher risk of increased risk behaviors as they get older (Eaton, Davis, Barrios, Brener, & Noonan, 2007), lending support to a complex interplay of adolescent behavior and the potential for victimization.

Recent research from Waves I through IV of Add Health data has suggested that for both males and females, in comparison to non-users, any marijuana use during adolescence and early adulthood is a significant predictor of dating violence victimization (Reingle, Staras, Jennings,

Branchini & Maldonado-Molina, 2012). Marijuana users were categorized in this study as desistors (reported use in Waves I or II, but not III), initiators (reported use at Wave III, but not Waves I or II), and consistent users (use in all Waves), and were compared to non-marijuana users. Here, consistent marijuana use was strongly predictive of dating violence victimization, independent of alcohol use (Reingle et al., 2012). Considering recent changes regarding the legal regulation of marijuana in certain states, it is clear that attention needs to be paid to marijuana use among adolescents, particularly due to its relationship to dating violence victimization. Based on these findings relating to substance use, the literature indicates that both increased high-risk alcohol use as well as increased marijuana use will increase the likelihood of an adolescent becoming a victim of dating violence.

2.2 Mesosystem Factors

2.2.1 Parental Monitoring

Parental supervision has been highlighted as a protective factor against dating violence (Small & Kerns, 1993). In a study of risk factors contributing to unwanted sexual activity among 7th, 9th, and 11th grade females, Small and Kerns (1993) found that parental monitoring was strongly associated with whether or not an adolescent experienced unwanted touching or sexual intercourse. The authors note that having parents who appropriately monitor and are aware of adolescents' social plans, whereabouts after school and at night, and who are interested in who the teen spends time with, may serve some protection against unwanted sexual activity. In particular, the authors explain this finding in that adolescents who have high levels of parental monitoring may be less likely to find themselves in situations where unwanted sexual activity may occur, and that they may also be less likely to associate themselves with peers who may perpetrate such acts (Small & Kerns, 1993).

There is plenty of research on family relationships (warmth/closeness) such that girls who do not feel close to their parents are more at risk of being victimized than those who report a satisfactory level of affective closeness (Cleveland, Herrera, & Stuewig, 2003; Magdol, Moffitt, Caspi, & Silva, 1998). In regards to relationships with parents, research conducted by Cleveland et al. (2003) using data from Waves I and II of Add Health has shown that positive relationships between females and their mothers significantly reduced the likelihood of experiencing physical abuse in relationships. In this analysis, the authors addressed positive mother relationships by assessing adolescents' reported closeness, warmth, and satisfaction with the level of parent-child communication. The authors suggest that positive relationships at home may help foster a sense of self-efficacy among adolescent girls, which in turn may help reduce the likelihood of becoming involved in or remaining in abusive relationships (Cleveland et al., 2003).

Furthermore, a longitudinal cohort study in New Zealand that explored developmental antecedents of partner abuse (reported at age 21) found that having close parent-child relationships at age 15 was associated with a low risk of later physical and psychological victimization (Magdol et al., 1998). Here, parent-child attachment was measured by assessing adolescents' trust, communication, and alienation in their relationships with parents. The authors suggest that this protective effect is likely a result of youths having healthy primary relationships in early childhood being more likely to expect and reciprocate positive relationship qualities of warmth, trust, and open communication in adult relationships (Magdol et al., 1998).

The application of parental monitoring in the present study is supported by research on personal and social factors predictive of adolescent dating violence victimization conducted by Howard, Qiu, and Boekeloo (2003). Based on a small sample of youth aged 12-17 years, this study found that higher levels of perceived parental monitoring were reported by both females,

and younger adolescents (those aged 12-13 years) (Howard et al., 2003). In this context, the authors measured parental monitoring by asking adolescents six questions that assessed the extent of their parents' awareness of their whereabouts and activities outside of school. Dating violence victimization was measured by asking youth about any time in the past three months that they were hit, punched, or physically hurt on purpose by a boyfriend or girlfriend. Findings from this study showed that adolescents' perception of frequent parental monitoring was associated with a significantly reduced likelihood of being a victim of dating violence in adolescence (Howard et al., 2003). The authors suggest that the decreased likelihood of victimization among highly monitored youth may be related to having parents who forbid or discourage youth from participating in unsupervised social situations, thereby providing some protection against unhealthy relationship behaviors.

These findings are consistent with those of Leadbeater, Banister, Ellis, and Yeung (2008), which showed that a lack of parental monitoring was associated with overt acts of physical violence victimization among a sample of 12-19 year olds. Here, parental monitoring was conceptualized through five items that ask about the extent to which parents know about teens' whereabouts, spending habits, and friendships, and physical violence included incidents of direct pushing or shoving, and threats of physical harm. Furthermore, Leadbeater et al. (2008), found support for parental monitoring being a protective factor against both dating violence victimization and relational aggression, such that higher levels of parental monitoring were associated with less overt physical victimization. In this context, the authors measured relational dating aggression as efforts to create jealousy, ignoring the partner, and threatening to end the relationship.

The authors suggest that the protective effect of parental monitoring may be related to an increased likelihood that parents “who use positive monitoring strategies know where their adolescents are, typically by relying on firm discipline, setting limits, open and trusting communication, conflict negotiation, and by providing transportation assistance to out-of-home activities” (Leadbeater et al., 2008, p. 367). Additionally, the authors propose that the protective effect of parental monitoring against victimization can be a result of increased involvement in and awareness of adolescents’ dating activities, such that unhealthy relationship behaviors may be prevented (Leadbeater et al., 2008). Based on the literature reviewed, this study predicts to find that low levels of parental monitoring will be associated with an increased risk of dating violence victimization, such that high levels of parental monitoring will serve as a protective mechanism against experiencing victimization.

2.2.2 Religiosity

Religiosity has been conceptualized by researchers as having distinctly public and private orientations (Nonnemaker, McNeely, & Blum, 2003). Public religiosity is measured by those religious practices that exist outside of the individual, whereas private religiosity includes personal beliefs and attitudes regarding religion that are held by individuals. As such, prior research has operationalized public religiosity by measuring the frequency of religious service attendance and attendance at teen-oriented religious activities (Nonnemaker et al., 2003). In contrast, private religiosity refers to the importance of religion to the individual, as well as the frequency of private prayer (Nonnemaker et al., 2003).

Using 1997 YRBS data to examine aspects of risky lifestyles and dating violence, Gover (2004) found that increased church attendance was significantly associated with a reduced risk of dating violence victimization, where dating violence was measured using Straus et al.’s (1996)

revised Conflict Tactics Scale and asked respondents about any time in the past year that a dating partner has physically beaten them up (e.g. kicking, hitting). In particular, this study found that “attending church three or more days in the past thirty days reduces the odds of dating violence by 29 percent” (Gover, 2004, p. 177). Gover (2004) suggests that these findings may be related to the antecedent influence of social ties, such as church attendance and living in a two-parent household, that protect against dating violence victimization through increased adult guardianship.

As part of a larger randomized controlled trial, Howard, Qiu, and Boekeloo (2003) conducted a small-scale study of personal and social correlates of adolescent dating violence among 12-17 year olds. Religious service attendance was found to be associated with a significantly decreased likelihood of dating violence among adolescents (Howard et al., 2003). The authors suggest that attending religious services “may represent a particular social context in which adolescents are not only discouraged from engaging in risky behaviors but afforded fewer opportunities to engage in such behavior” (Howard et al., 2003, p. 14). Furthermore, religious service attendance may protect against victimization by exposing youth “to messages from clergy, other congregants and peers, which encourage or reinforce personal beliefs and attitudes” (Howard et al., 2003, p. 14) in such a way so as to diminish the likelihood of dating violence.

Add Health data from Waves I through III has been used to examine violence victimization in adolescence and young adulthood among individuals in opposite-sex relationships, particularly in order to understand associations between sociodemographic factors and victimization (Halpern et al., 2001). Here, among females who felt that religion was unimportant, researchers found that the odds of psychological victimization (being called names,

insulted, sworn at, threatened with violence) were about 1.5 to 2 times greater than for females who felt that religion was very important (Halpern et al., 2001).

In addressing the relationship between religious involvement and domestic violence using data from the National Survey of Families and Households, Ellison, Trinitapoli, Anderson, and Johnson (2007) found associations that support religious service attendance as being protective against partner violence, with partner violence being measured as incidents of hitting, shoving, or pushing in the past year. In particular, the researchers found that the frequency of religious service attendance is inversely associated with victimization such that in comparison to a woman who never attends religious services, a woman who attends several times each week is roughly 40% less likely to be a victim of domestic violence (Ellison et al., 2007). The authors explain that the protective effect of religious service attendance against both perpetration and victimization of domestic violence through increased social integration and support may be “a proxy for prayerfulness, positive religious coping styles, self-discipline, or other such factors” (Ellison et al., 2007, p. 1107).

As part of a national study of couples, Cunradi, Caetano, and Schafer (2002) analyzed the effects of several religious factors in relation to IPV, including religious affiliation, service attendance, and importance of religion. Findings from this study revealed that increased religious service attendance was associated with significantly lower rates of IPV victimization for both males and females, with IPV being measured as incidents of physical violence (e.g. hit, kicked, burned, threatened with a weapon, forced sex) in the past year (Cunradi et al., 2002). Similarly, both men and women who reported religion as being very important showed lower rates of IPV victimization than those who reported religion as not being important (Cunradi et al., 2002). These findings are explained through a public health approach that suggests religious institutions

may play a role in the prevention and intervention of partner violence, such that attending religious services may allow for clergy to intervene at times of marital discord (Cunradi et al., 2002). Based on the literature reviewed on religious service attendance, it is predicted that low religiosity will be associated with an increased likelihood of dating violence victimization.

2.3 Demographics

In order to define the scope of this research, it is necessary to understand the key demographic variables that pertain to experiences of TDV victimization. First, age has been shown to be predictive of victimization, especially when considering that girls and young women between 16 and 24 years old are at the highest risk for becoming victims of intimate partner violence (Rennison, 2001). Recent data from the CDC's National Intimate Partner and Sexual Violence Survey (NISVS) shows that about 1 in 4 women (24.3%) and 1 in 7 men (13.8%) who have ever experienced rape, physical violence, and/or stalking behaviors by an intimate partner, first reported having been victimized by a partner between 11 and 17 years of age (Black et al., 2011), which relates to the initiation of dating activities among adolescents.

Furthermore, when we consider the differences in rates of victimization between males and females, it is clear that TDV remains a gender-based issue. However, research specifying gender differences in TDV victimization remain mixed (Black et al., 2011; Hamby & Turner, 2013; Tjaden & Thoennes, 2000). Similarly, differences in the types of violence experienced by adolescents further highlight the gendered nature of this social problem. Physical dating violence has been shown to be higher among females (13.0%) than males (7.4%), as has sexual dating violence, with females reporting victimization (14.4%) at higher rates than males (6.2%) (Kann et al., 2014). Hamby & Turner (2013) point to differences in how research relating to TDV has

relied on a multitude of measures to address physical, psychological, and sexual victimization, and how these different operationalizations yield conflicting results.

Additionally, the consequences of TDV show further differences by gender, particularly in terms of severity and injury, with females consistently reporting higher rates of injury than males (Black et al., 2011; Tjaden & Thoennes, 2000). When examining rates of injury as a result of physical dating violence, prior research showed significantly higher rates for females (36.4%) than for males (12.9%) (Hamby & Turner, 2013), suggesting that while both males and females experience victimization, females are still more likely to be seriously injured as a result of dating violence. In light of these distinctions, it is apparent that there are significant gender differences in the type and severity of TDV, supporting the need for this study.

While it is commonly understood that intimate partner violence and teen dating violence is not specific to any particular racial or ethnic group, studies have shown that differences between groups do exist (Black et al., 2011; Tjaden & Thoennes, 2000). According to the CDC's 2013 YRBS data on adolescents, white females show victimization rates of 12.9% compared to only 6.4% of white males. These differences in rates of victimization follow the same pattern for black females (12.3%) and Hispanic females (13.6%), compared to black males (8.2%) and Hispanic males (7.0%) (Kann et al., 2014), suggesting an intersection between race and gender.

An increased prevalence of victimization is noted among American Indian or Alaska Native women – 46.0% have experienced rape, physical violence, and/or stalking by a partner in their lifetime (Black et al., 2011), and is explained by Tjaden and Thoennes (2000) as being a possible function of American Indians/Alaska Natives being more violent than white counterparts. Furthermore, differences in rates of victimization among minority racial-ethnic

groups may be related to the intersections of other social, environmental, and demographic factors with race (Tjaden & Thoennes, 2000).

Finally, while intimate partner and dating violence are not limited to heterosexual relationships, rates of victimization differ significantly between individuals in same-sex relationships and those in opposite-sex relationships, suggesting that broader cultural influences may contribute to victimization. In particular, since violence within same-sex relationships necessarily includes both male victims and female perpetrators, it has been suggested that gender roles and accompanying aspects of socialization may affect outcomes of victimization (Baker et al., 2013). The National Violence Against Women Survey (NVAWS) found that among those who identified as same-sex attracted, 21.5% of men and 35.4% of women had experienced physical relationship violence in their lifetime (Tjaden & Thoennes, 2000). In contrast, for those reporting only opposite-sex relationships, the rate of victimization for men was 7.1% and 20.4% for women (Tjaden & Thoennes, 2000). These findings emphasize the disproportionately high rates of IPV victimization among same-sex attracted individuals.

Recent data further suggests that bisexual and lesbian-identifying women are more likely than their heterosexual counterparts to experience IPV: for lesbians, the lifetime prevalence of any form of IPV was 43.8% compared to 35.0% for heterosexual women (Walters, Chen, & Breiding, 2013). In stark contrast to these figures, bisexual women's experiences of IPV during their lifetime show rates of 61.1% (Walters, Chen, & Breiding, 2013). A secondary analysis of the NVAWS by Messinger (2011) found that among both male and female bisexuals, partner violence is more often perpetrated by an opposite-sex partner.

2.4 Ecological Systems Model

The present study applies a framework for the ecology of human development, as proposed by developmental psychologist Urie Bronfenbrenner (1977), in order to understand specific risk and protective factors contributing to dating violence victimization.

Bronfenbrenner's ecological systems model is widely accepted and applied within the global field of violence research, particularly in the context of violence prevention (Heise & Garcia-Moreno, 2002), and takes into account the effect of environmental influences and processes on determining individual outcomes. As put forth by Bronfenbrenner in 1977, the ecology of human development is defined as:

The scientific study of the progressive, mutual accommodation, throughout the life span, between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded (p. 514).

At a fundamental level, Bronfenbrenner's continuously developed ecological model proposes four interrelated environmental systems that have both proximal and distal effects on the individual: the micro-, meso-, exo-, and macro-systems.

The microsystem refers to a "pattern of activities, social roles, and interpersonal relations" experienced by an individual in a "given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit engagement in sustained, progressively more complex interaction with, and activity in, the immediate environment" (Bronfenbrenner, 1994, p. 39). The mesosystem refers to the interrelations between major environmental settings, such as interactions between parents and children, and is summarized as

being a system of microsystems (Bronfenbrenner, 1977). Next, the exosystem extends beyond the mesosystem and includes formal and informal social structures that the individual does not directly engage in, such as major social institutions, neighborhoods, and mass media. Finally, the macrosystem refers to “the overarching institutional patterns of the culture or subculture, such as the economic, social, education, legal, and political systems, of which micro-, meso-, and exo-systems are the concrete manifestations” (Bronfenbrenner, 1977, p. 515).

As his theory evolved, Bronfenbrenner increasingly emphasized the interactions of the Process-Person-Context-Time (PPCT) model. Here, process refers to “particular forms of interaction between organism and environment, called proximal processes, that operate over time... [and] are posited as the primary mechanisms producing human development” (Bronfenbrenner & Morris, 2006, p. 795). In reference to the person, Bronfenbrenner (1977) stressed the importance of personal characteristics that are unique to the individual, namely, characteristics of demand, resource, and force, and made clear that individuals have the ability to change their environmental contexts in passive and active ways on the basis of these characteristics.

Demand characteristics are described as having an immediate effect on how an individual is perceived by others, based on things like physical appearance, age, sex, and skin color, and how these items are stereotypically seen. Resource characteristics are those which are not immediately apparent, but based on the presence of certain demand characteristics, may be inferred (Tudge, Mokrova, Hatfield, & Karnik, 2009). These include aspects that “relate partly to mental and emotional resources such as past experiences, skills, and intelligence and also to social and material resources” (Tudge et al., 2009, p. 200). Finally, force characteristics of the

individual may be considered functions of personality – “differences of temperament, motivation, persistence, and the like” (Tudge et al., 2009, p. 200).

Context then refers to the environment (micro-, meso-, exo-, macrosystem) in which an individual is situated, or which has an indirect environmental influence on the individual. Finally, the influence of time on the individual refers to the extent to which activities and interactions at the micro-level occur relatively constantly or infrequently, as well as how influences of cultural and historical time affect outcomes of human development (Tudge et al., 2009).

In an effort to improve both early intervention and prevention practices in response to adolescent dating violence, it is imperative to address those factors that increase or decrease the likelihood of becoming a victim, taking into account the influences and interactions between all levels of the ecological system, as well as each element of the PPCT model. Currently, limited research exists that explores the interactions between meso- and exosystem influences, such as neighborhood factors, school type (e.g. public/private), and dating violence victimization and research on macrosystem factors regarding cultural norms and larger institutional policies related to violence victimization is similarly scant.

By applying key concepts of Bronfenbrenner’s ecological model, the present study seeks to examine the influence of personal characteristics and proximal processes within the microsystem that may contribute to adolescent dating violence victimization. In particular, this study distinguishes between individual characteristics of self-esteem, depressive symptoms, alcohol use, and marijuana use. Additionally, aspects of the mesosystem are explored in terms of religiosity and parental monitoring, as they relate to microsystem influences on proximal processes.

2.4.1 Risk and Protective Factors

For the purposes of this research, risk and protective factors are those associated with a greater likelihood of victimization, both at the individual level and within the mesosystem of Bronfenbrenner's ecological system. A risk factor is a "characteristic that increased the likelihood of a person becoming a victim or perpetrator of violence" (Centers for Disease Control and Prevention [CDC], 2013), whereas a protective factor is one that "decreases the likelihood of a person becoming a victim or perpetrator of violence because it provides a buffer against risk" (CDC, 2013). When multiple risk factors occur simultaneously, they can contribute to an increased likelihood of victimization, depending on which risk factors are present. Whereas risk factors for perpetration of TDV are well-documented (Vagi et al., 2013), there is less research available that pertains exclusively to risk and protective factors for victimization. It is clear that dating violence happens, but our understanding of why it occurs is less understood.

O'Keefe and Treister (1998) reference this lack of known risk factors for victimization and support the need for further research to better understand which factors increase the likelihood of experiencing TDV. In particular, further research on this subject would allow for improved responses to victims of violence by enhancing the knowledge of effective intervention activities, and would improve prevention practices by having an increased understanding of who may be at greater risk for victimization (O'Keefe & Treister, 1998).

Research addressing risk and protective factors for victimization is highly sensitive, due to the potential of it being construed as blaming victims. This disparity is critical, and it is of utmost importance to understand that any discussion of factors that are protective against victimization is not intended to put the onus on victims to protect themselves against violence. To be clear, the responsibility of preventing victimization lies with those perpetrators of violence

who choose to victimize others. As such, this study is intended to explore how certain risk and protective factors are related to experiences of TDV victimization. Under no circumstances does this research intend to suggest that victims are at fault for their own victimization.

The present study aims to explore different risk and protective factors that are predictive of victimization within the context of adolescents' individual characteristics and the mesosystem in order to extend existing knowledge in the field of violence prevention. In particular, self-esteem (Aguilar & Nightingale, 1994; O'Keefe & Treister, 1998), depressive symptomatology, and substance use (Foshee et al., 2004) are examined within the context of individual characteristics predictive of victimization. Religiosity (Halpern et al., 2001) and parental monitoring (Howard et al., 2003) are examined as individual environmental factors located within the mesosystem that may help guard against victimization through social bonding, engagement, and attachment. Each of these factors has separately been identified by other reviews of the literature as being among risk factors contributing to the likelihood of TDV victimization (Glass et al., 2003; O'Keefe, 2005; Vézina & Hébert, 2007), and as such necessitate further study.

CHAPTER 3

METHODS

3.1 Data

This secondary analysis is based on public-use data from Waves I and II of the National Longitudinal Study of Adolescent to Adult Health ([Add Health] Udry, 2003), a representative sample of US middle and high schools. Respondents were interviewed for Wave I between 1994-1995 when they were in grades 7 through 12, with the Wave II follow-up in 1996, and consist of one half of the number of respondents from the restricted-use sample. The total number of Wave I respondents in this dataset is 6,504. The current analysis is limited to 4,490 unmarried adolescents who completed the in-home questionnaires at Waves I and II, and who had complete data on the study variables. Respondents were further restricted to include only those who reported having been in a romantic relationship. The age range is between 11 and 17 years, with the average age being 14.8 years at Wave I.

Add Health gathers information on a variety of factors that may influence the health and risk behaviors of adolescents, including romantic relationships, friendships, and neighborhoods. The study provides valuable information regarding predictors of adolescent health outcomes, including substance use, depression, and suicidality. Data is also gathered in order to better understand those protective factors, such as family connectedness and perceived parental support, which may help protect adolescents from future negative health behaviors and outcomes. Information specific to sexual activity, knowledge of contraceptives, and pregnancy are also investigated.

3.2 Dependent Variable

For this study, dating violence victimization in Wave II is the dependent variable. All of the independent variables were measured at Wave I.

3.2.1 Dating Violence Victimization

Dating violence victimization was measured by five items in Wave II that investigated participants' experiences with violence victimization in relationships with up to three separate partners. These items were derived from the 78-item Revised Conflict Tactics Scale ([CTS2] Straus et al., 1996). The CTS2 is a widely used tool that assesses both victimization and perpetration and includes 5 subscales that measure the frequency of physical assault, psychological aggression, sexual coercion, negotiation, and injury between partners.

Participants were asked if a partner had ever (1) insulted them in public; (2) sworn at them; (3) threatened them with violence; (4) pushed or shoved them; or (5) thrown something at them that could hurt. If the participant only reported one relationship, the report of violence victimization of that one relationship was used. If the participant reported two or three relationships, the scores for violence victimization were averaged across the relationships (Cui et al., 2013). Response categories were 0 'No' and 1 'Yes.' The five items were summed to create a score of violence victimization, ranging from 0 incidents to 5 incidents with weighted mean of .32.. This measure was then dichotomized into categories of zero incidents and at least one incident of victimization for analysis purposes.

3.3 Independent Variables

3.3.1 Self-Esteem

Self-esteem was measured by six ordinal-level items similar to Rosenberg's Self-Esteem Scale ([RSES] Rosenberg, 1965), a widely used self-report inventory. These items include

positive measures of individual self-worth, including social acceptance, having good qualities, and self-liking. Response categories ranged from 1 ‘Strongly disagree’ to 5 ‘Strongly agree’ after reverse scoring. These items were analyzed for reliability ($\alpha = .85$) and were then summed into a scale ranging from 6 to 30, with higher values indicating higher self-esteem.

3.3.2 Depressive Symptoms

The ordinal-level *depressive symptom* scale was adapted from the Center for Epidemiologic Studies Depression Scale ([CESD-R] Radloff, 1977) and was measured by a 16-item summative scale that included both positive and negative measures of individual depression, including happiness, feelings of sadness, and loneliness. Response categories included 0 ‘Never or rarely’ to 3 ‘Most of the time or all of the time.’ Positive items were reverse-coded so that all items shared the same directionality. These items were analyzed for reliability ($\alpha = .87$), and all items were then summed to create a scale of depressive symptoms, which ranged from 0 to 42, with larger values indicating more depressive symptoms.

3.3.3 Substance Use

Substance use was distinguished separately as high-risk alcohol use and marijuana use. High-risk alcohol use was measured by analyzing interval-level responses to a single question at Wave I asking how many times in the past year respondents drank more than 5 alcoholic drinks in a row. Response categories ranged from 1 ‘Never’ to 7 ‘Every day or almost every day.’

The interval-level marijuana use variable was measured by a single item asking respondents how many times they used marijuana use in the past 30 days. Responses were top coded and the categories ranged from 0 to 25 times.

3.3.4 Parental Monitoring

Parental monitoring was measured by summing responses to seven nominal-level items that addressed the degree to which parents allowed children to make their own decisions regarding curfew, friends, clothing, television viewing, and diet. Response categories were 0 ‘Yes’ and 1 ‘No’ with parental monitoring behaviors ranging from 0 to 7, with higher values indicating more parental monitoring (Manning, Longmore, & Giordano, 2005).

3.3.5 Religiosity

Religiosity was measured by two ordinal-level items that address the frequency of religious service attendance (Nonnemaker et al., 2003). Respondents were asked how often they attended religious services within the past 12 months, and whether they attended any youth groups, Bible classes, or other youth-oriented religious activities. The mean of the two items was calculated. Higher values indicate greater religiosity. Response categories ranged from 1 ‘Never’ to 4 ‘Once a week or more.’

3.4 Demographic Variables

3.4.1 Age

Age is an interval-level variable that was created by Sociometrics researchers by calculating each respondent’s birth day, month, and year, which was then coded into a single age response in years. Using the date the interview took place, age was further calculated by subtracting from the interview date, resulting in the age at first interview (Wave I).

3.4.2 Sex

Sex is a binary nominal-level variable created based on respondents’ self-reported sex at Wave I. Response categories were 0 ‘Male’ and 1 ‘Female.’

3.4.3 Sexual Orientation

Sexual orientation was measured at Wave I by cross-referencing responses to the biological sex question and questions about having ever been attracted to a female or male. Response categories for this nominal-level variable were 0 ‘Opposite-sex attracted’ and 1 ‘Same-sex attracted.’

3.4.4 Race/Ethnicity

Race/ethnicity was a self-reported nominal-level variable measured at Wave I with the following five categories: White (non-Latino); Black (non-Latino); Latino; American Indian/Alaska Native; Asian/Pacific Islander; and Other. For analysis purposes, race was dichotomized into a White/Non-White dummy variable, with Asian/Pacific Islanders being included in the White category due to the means of these groups being statistically similar.

CHAPTER 4

RESULTS

For this study, univariate analyses were used, consisting of descriptive statistics and frequency distributions. For multivariate analysis, a logistic regression analysis was conducted to evaluate how well the variables of self-esteem, parental monitoring, religiosity, depression, and substance use predict whether or not an adolescent will become a victim of dating violence. Due to the highly non-normal distribution of the dependent violence victimization variable, an OLS regression analysis was rejected in favor of a logistic regression analysis. Unweighted analyses were conducted using the Statistical Package for the Social Sciences software, version 19.0 (SPSS, Inc., 2010). Final weighted analyses were computed with STATA version 12.1 (StataCorp, 2011) in order to allow for the study to be generalizable to the population.

4.1 Univariate Analysis (Table 1)

Table 1 presents the results for the dependent variable violence victimization and all independent variables. Of the 4,490 adolescents sampled, only 19% reported having experienced at least one incident of victimization, in comparison to 81% who had never been victimized. The age range is between 11 and 17 years, with the average respondent being 14.81 ($SD = .10$) years of age at Wave I. Of the 4,490 respondents, half were female (50%). Of the total sample, 10% identified as being same-sex attracted, which corresponds to national figures of same-sex attraction. Of the total sample, 71% of respondents were White or Asian. Of the remaining sample, 15% were Black, 8% identified as Other, 5% were Latino, and only 1% were American Indian/Alaska Native.

The mean of the self-esteem scale is 24.77 ($SD = .08$), suggesting fairly high self-esteem among respondents. The mean of the depressive symptom scale is 9.23 ($SD = .15$), indicating

fairly low depressive symptoms among respondents. For high-risk alcohol use, the mean response was 1.58 (SD = .03), indicating low frequency of high-risk alcohol drinking by respondents. The mean response value for marijuana use was 1.02 (SD = .08), showing low frequency of marijuana use among respondents.

The mean of the parental monitoring measure is 2.06 (SD = .05), indicating rather low parental monitoring, which suggests that respondents have more freedom in their personal decision-making abilities. The mean value of religiosity is 2.41 (SD = .04), suggesting at least monthly but less than weekly religious service attendance.

4.2 Multivariate Analysis (Table 2)

A logistic regression analysis was conducted to evaluate how well the variables of self-esteem, depressive symptoms, high-risk alcohol use, marijuana use, parental monitoring, and religiosity, depressive symptoms predict whether or not an adolescent will become a victim of dating violence, net of race, sex, and sexual orientation.

Results from Table 2 show that for individual-level factors, self-esteem was not statistically significant. However, a one-unit increase in depressive symptoms was associated with slightly higher odds of victimization ($B = 0.03$, $p < .001$; $\text{Exp}(B) = 1.03$), net of other factors, suggesting that increased depressive symptoms increase the risk of becoming a victim of dating violence. Similarly, for every one-unit increase in high-risk alcohol use, the odds of being victimized increased by 19% ($B = 0.17$, $p < .001$; $\text{Exp}(B) = 1.19$), net of other factors, suggesting that higher levels of high-risk alcohol consumption among adolescents significantly increases the risk of dating violence. Along with high-risk alcohol use, for every one-unit increase in marijuana use, the odds of being victimized increased by 3% ($B = 0.03$, $p < .01$; $\text{Exp}(B) = 1.03$), net of other factors, suggesting that using marijuana is related to a greater risk of victimization.

That is, both high-risk alcohol use and marijuana use appear to be significant risk factors for becoming a victim of dating violence.

Among mesosystem factors, for every one-unit increase in parental monitoring, the likelihood of victimization decreased by 9% ($B = -0.09$, $p < .01$; $\text{Exp}(B) = 0.91$), net of other factors. That is, when parents engage in more monitoring of adolescents regarding curfew times and friendships, the risk of becoming a victim decreases. As such, more parental monitoring may function as a protective factor against being victimized. Similarly, for every one-unit increase in religiosity, the likelihood of victimization decreased by 10% ($B = -0.11$, $p < .01$; $\text{Exp}(B) = 0.90$), net of other factors. Less frequent religious service attendance corresponded to an increased likelihood of becoming a victim, suggesting that increased religious service attendance may also grant some protection against becoming a victim.

Females were 26% more likely than males to experience violence victimization ($B = 0.23$, $p < .05$; $\text{Exp}(B) = 1.26$). For every one year increase in age, the likelihood of victimization increased by 20% ($B = 0.18$, $p < .001$; $\text{Exp}(B) = 1.20$), suggesting that the older an adolescent is, the greater the risk of becoming a victim. When we look at sexual orientation, same-sex attraction significantly decreased the likelihood of victimization ($B = -0.66$; $p < .001$; $\text{Exp}(B) = 0.52$), suggesting that being same-sex attracted may serve as a protective measure against experiencing dating violence amongst adolescents.

CHAPTER 5

CONCLUSION

5.1 Discussion

This study extends existing literature by examining specific individual and mesosystem factors occurring within Bronfenbrenner's ecological model at Wave I (1994-1995) that may predict dating violence victimization during adolescence at Wave II (1996). Dating violence victimization within adolescent relationships has recently experienced a surge in recognition as a public health problem that affects approximately 1 in 10 adolescents (Kann et al., 2014). The long-term consequences of victimization, including depression and substance use, are widely understood whereas those factors that may influence the likelihood of victimization are less well known. The myriad psychological, emotional, and physical consequences of dating violence victimization necessitate an improved understanding of predictive factors so as to promote prevention and early intervention strategies that could help reduce the likelihood of an adolescent being involved in an unhealthy dating relationship.

In regards to what Bronfenbrenner refers to as demand characteristics of individuals, this study found that certain demographic factors are associated with having a greater ability to predict whether an adolescent is victimized within a dating relationship, namely increased age and being female. For every one year increase in age, the likelihood of victimization increased by 20%, suggesting that increased age is linked with an increased likelihood of victimization. This is supported by a life course perspective on dating patterns among adolescents, with older adolescents being more likely than younger peers to have engaged in dating relationships. As such, older adolescents may be at an increased risk of experiencing violence due to the probability of them having engaged in more relationships than younger adolescents who may

have not yet started dating. Additionally, when we consider the interactive mesosystem influence of parental monitoring, we can see how younger adolescents may be more closely monitored than older adolescents, such that older adolescents have more freedom to make personal decisions, and thus may be at an increased risk of victimization due to decreased monitoring in later adolescence.

With sex being considered an additional demand characteristic, this study further found that females were 26% more likely than males to experience violence victimization. This is consistent with substantial literature that found females are at greater risk for both physical and sexual violence victimization than males (Black et al., 2011; Kann et al., 2014; Tjaden & Thoennes, 2000). This finding is further supported by current research that shows intimate partner violence being disproportionately perpetrated by males against females, and females being more likely to suffer physical injuries from violence (Hamby & Turner, 2013). However, alternate research has shown that physical violence perpetration estimates for females range from 28% to 33%, but only 11% to 20% for males (Hickman, Jaycox, & Aronoff, 2004). Considering the discrepancy between which males and females experience victimization, it is clear that dating violence in adolescence, much like intimate partner violence in adulthood, is a gender-based problem with roots that are deeply embedded within the greater social system.

Same-sex attraction was found to significantly decrease the likelihood of victimization, suggesting that being same-sex attracted may serve as a protective measure against experiencing dating violence. This finding is in conflict with existing research that shows increased risk of victimization among minority sexual groups due to harmful social stereotypes and stigmas, such that same-sex attracted individuals “may also experience minority stress, stress resulting from experienced and internalized homophobia” and that abusers may use the fear of being outed to

further control victims (Messinger, 2011, p. 2229; Stiles-Shields & Carroll, 2014). One explanation may be that victimization was measured at Wave II in 1996, and it is important to recognize that various social factors at the time may have impacted the analysis. There have been marked differences between the cultural climate and support for same-sex attraction in the 1990s in comparison to today, which is clearly seen in the increased traction of the marriage equality movement. Additionally, reparative therapies to “cure” homosexuality were more prevalent in the 90s than they are today, and same-sex attracted adolescents were not self-identifying at the same rates or in the same way that we see currently, where there is much more social support and acceptance of non-normative identities and orientations. The divergence from previous research suggests a need for further examination in future research.

The variable of race was not found to be significant in predicting dating violence victimization. This finding is pertinent since it deviates from existing literature that strongly supports higher rates of victimization among minority racial-ethnic groups (Black et al., 2011). Since this study dichotomized race as a minority/non-minority variable, it is possible that further analysis by specific racial/ethnic groups may reveal differences in victimization. Furthermore, cultural and behavioral norms, gender role beliefs and stereotypes among racial subgroups may influence how and why violence is used, and may further influence how victims perceive of the violence inflicted against them.

In terms of the individual personal characteristics and mesosystem influences that are predictive of dating violence victimization, findings from this study supported all but one of the six proposed research hypotheses. Self-esteem was not found to be a significant predictor of victimization, giving no support to the first hypothesis. This finding is surprising and also noteworthy because it suggests that as an individual attribute, self-esteem does not predict an

increased likelihood of becoming a victim of dating violence, whereas it has previously been shown to have some protective influence against victimization (Ackard & Neumark-Sztainer, 2002; Aguilar & Nightingale, 1994; Foshee et al., 2004; O’Keefe & Treister, 1998; O’Keefe, 2005; Renner & Whitney, 2012). A possible explanation for this finding could be that it is not self-esteem, but rather self-efficacy that may influence whether or not an adolescent becomes a victim of TDV.

As an additional individual-level personal characteristic, having increased depressive symptoms was associated with an increased risk of victimization, which supports the second research hypothesis. This finding is important because it shows that having more symptoms of depression puts adolescents at an increased risk of becoming a victim of dating violence, which is supported by current research (Foshee et al., 2004; O’Keefe, 2005; Vézina & Hébert, 2007). Existing studies have shown a relationship between increased depressive symptoms and an increased likelihood of violence victimization (Keenan-Miller et al., 2007; Lehrer et al., 2006; Melander et al., 2010).

In terms of individual-level risk-taking behavior characteristics, for every one-unit increase in high-risk alcohol use, the odds of being victimized increased by 19%, suggesting that higher levels of risky alcohol consumption among adolescents significantly increases the risk of dating violence victimization, thus supporting the third research hypothesis. Similarly, increased marijuana use was associated with an increased risk of victimization, lending support to the fourth research hypothesis. Understandably, engaging in risky behaviors increases the likelihood of being victimized (Black et al., 2006; Eaton et al., 2007; Nowotny & Graves, 2013; Reingle et al., 2012; Temple & Freeman, 2011). As such, both high-risk alcohol use and marijuana use appear to be significant risk factors for becoming a victim of dating violence in adolescence.

However, it is important to note that while increased depressive symptoms and increased substance use are associated with an increased likelihood of victimization, there is a potential for these factors to be co-occurring. Substance use especially is frequently seen as being a coping behavior, both for individuals with increased depressive symptoms and for individuals who have experienced victimization. As such, controlling for Wave 1 TDV would strengthen the study design and more adequately distinguish between the co-occurrence of victimization in conjunction with depressive symptoms and substance use.

In terms of mesosystem influences on individuals, when parents engage in more monitoring of adolescents regarding curfew times and friendships, the risk of becoming a victim was shown to decrease. As such, more parental monitoring may function as a protective factor against being victimized. Based on these findings, the second research hypothesis is supported. This finding is further supported by existing literature that shows when parents are aware of and involved in youth's activities, there is a reduced likelihood of adolescents being in situations where unwanted activities may occur (Small & Kerns, 2003). Additionally, this finding is supported by literature showing that having positive relationships in the home environment may help foster a sense of self-efficacy that can reduce the likelihood of victimization (Cleveland et al., 2003; Magdol et al., 1998).

Alternately, having high levels of parental monitoring may reduce the likelihood of adolescents becoming victims of dating violence due to parents relying on open communication and enforcing clear limits and expectations (Leadbeater et al., 2008). Similarly, the protective influence of parental monitoring can be seen when parents restrict adolescents from participating in unsupervised social situations, thus reducing the likelihood that adolescents will be victimized (Howard et al., 2003).

In terms of religiosity as an additional mesosystem influence on the individual, less frequent religious service attendance corresponded to an increased likelihood of becoming a victim, suggesting that increased religious service attendance may grant some protection against becoming a victim. This finding shows support for the third research hypothesis, and is further supported by existing literature showing an association between the importance of religion (Halpern et al., 2001), increased church attendance (Cunradi et al., 2002), and a reduced risk of violence victimization. The protective effect of religiosity against dating violence victimization can be seen as a result of increased social integration and support (Ellison et al., 2007), and also as a result of being in a structured environment where opportunities to engage in risky behaviors is minimized (Howard et al., 2003). Furthermore, the protective effect of religious service attendance against victimization may be a function of increased social connections and increased parental guardianship (Gover, 2004).

On the other hand, this study addressed religiosity by measuring the frequency of attendance for religious services and for religious youth group activities, and as such may not have adequately addressed religious salience or differences between religious groups. Religious identification may also influence how individuals report on or reframe certain abusive behaviors, which may contribute to underreporting. Furthermore, religion is not necessarily a consequential factor for all individuals, and those who do not identify as being religious may find similar social support and integration through alternate forms of spirituality, or inclusion in non-religious social groups or activities, which were not addressed in this study.

5.2 Limitations

This study has many strengths, including its longitudinal approach and nationally representative data. However, one limitation of the data used in this study is the use of self-report

inventories in collecting data regarding experiences of dating violence victimization. As with any research involving sensitive topics, there is a potential for underreporting of key data based on social desirability effects and perceived stigma, particularly against victims, as may be the case in this study. The outcome variable of victimization at Wave II was constructed to address physical and psychological/emotional components of dating violence, but did not address aspects of sexual violence victimization or coercive control, and sexual violence victimization is known to be more prevalent among females (Black et al., 2011). Furthermore, the Revised Conflict Tactics Scale (Straus et al., 1996) includes 78 measures of partner violence, and only five of these measures were used for this study. As such, it may be that the five items used in the construction of the victimization index were inadequate in addressing the lived experiences of those adolescents who have been victimized, thus contributing to potential underreporting. Additionally, questions relating to victimization were not included in the Wave I survey, and as such, it was not possible to control for prior victimization. An additional limitation in the research design is that the sex of the relationship partner was not included in analysis, so it is unknown whether the victimization reported by adolescents occurred within a same or opposite-sex relationship.

5.3 Implications and Future Research

While it is clear that individual personal characteristics and factors have an effect on the likelihood of victimization, this study did not analyze the effect of wider environmental influences such as peer networks, family relationships and socioeconomic status, unemployment rates and community factors, and broader sociocultural norms. It is therefore important to address and understand risk and protective factors at the outer layers of the ecology that were not included in this study, and how these unexplored factors influence microsystem dynamics, in

turn further contributing to victimization. By and large, there are environmental factors that influence victimization, and future research should take into account how factors outside of the individual impact the likelihood of victimization.

When we consider victimization in the context of the mesosystem, we can see how factors beyond the individual are influential. In particular, we can look at the interrelationship between peer groups, friendships, and parents, and how the dynamics of these relationships affect the likelihood of an individual becoming a victim of dating violence. Considering the significance of these relationships to adolescents, we can see how things like witnessing intimate partner violence between parents during childhood can send clear messages to adolescents about relationships, and put youth at risk of becoming both perpetrators of violence, as well as victims. These factors are especially important when we consider the complex interplay between the levels of Bronfenbrenner's ecological system, wherein factors beyond the individual are still very much influential on individual outcomes.

Furthermore, in the context of high-risk alcohol use and marijuana use being predictive of victimization, it is apparent that there is a need to address specific risk-taking behaviors among certain adolescents. When we consider the prevalence of adolescent victimization and the likelihood that many of these adolescents will attend higher education institutions, the need for a discussion about the intersection between the culture of college campuses and the prevalence of high-risk alcohol use in early adulthood becomes clear. Moreover, this finding has implications for institutional policies related to reducing the incidence of high-risk alcohol use on college campuses. In particular, there is a need to address those groups who engage in high-risk substance use behaviors, and to target these high-risk subgroups for intervention activities

specifically designed to reduce both the frequency of high-risk substance use, but also to in turn reduce the likelihood of TDV victimization.

Additionally, the influence of the exosystem contributes to our ability to understand broader factors that further contribute to victimization. For example, strong community sanctions against violence and policies promoting the inclusion of universal healthy relationship education in elementary school curricula are external to the individual, but the effects are still important for being able to prevent individual victimization. This study's finding that increased religious service attendance was associated with a decreased likelihood of victimization highlights the influence of exosystem factors on individual outcomes. Here, we can see how institutional religious beliefs and norms are manifested within the specific religious group, and are further internalized by individual members.

The comprehensive influence of the macrosystem and the beliefs and values shared by the dominant cultural group ultimately trickle down and contribute to both violence perpetration and victimization. In particular, deeply embedded patriarchal norms that are supportive of men's violence against women, such as strongly-held beliefs about traditional gender roles, and the media's objectification of women's bodies and glamorization of violence against women, can largely be seen as macro-level factors that perpetuate the perpetration of violence on an individual level. The field of dating violence prevention would benefit greatly from future research that specifically addresses these sociocultural factors that contribute to the individual perpetration of relationship violence and would have enhanced this study.

Finally, the application of Bronfenbrenner's theory emphasizes the interaction effects between all aspects of the ecological system, wherein each system influences and is influenced by the others, and also emphasizes the importance of context in determining individual

outcomes. From this perspective, we can see how the likelihood of victimization is influenced separately at each level, but also how the levels work together to contribute to victimization. When examining violence from the broader macro- and socio-structural levels, the strong influence of patriarchal cultural norms can be felt across the ecological model, ultimately factoring in to both the perpetration of violence and its consequent victimization. As such, to eliminate violence from first occurring, it is imperative to promote policies that aim to change social norms that are supportive of violence, and that these changes occur within cultural institutions, communities, schools, and families.

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TABLE 1

Descriptive Statistics for Respondent Characteristics at Wave 1

	Mean or %	SD	Range
<i>Dependent Variable</i>			
Dating Violence Victimization	0.19		
Female	49.84	0.01	
Age (years)	14.81	0.10	11-17
Minority	28.97	0.03	
Same-Sex Attraction	10.39	0.01	
<i>Individual Factors</i>			
Self-Esteem	24.77	0.08	6-30
Depressive Symptoms	9.23	0.15	0-42
Alcohol Use	1.58	0.03	1-7
Marijuana Use	1.02	0.08	0-25
<i>Mesosystem Factors</i>			
Parental Monitoring	2.06	0.05	0-7
Religiosity	2.41	0.04	1-4

TABLE 2

Logistic Regression of Dating Violence Victimization at Wave II

Variable	B	Sig	SE	Odds Ratio
Female	0.23	*	0.11	1.26
Age	0.18	***	0.03	1.20
Minority	-0.01		0.09	0.99
Same-Sex Attraction	-0.66	***	0.20	0.52
<i>Individual Factors</i>				
Self-Esteem	-0.01		0.01	0.99
Depressive Symptoms	0.03	***	0.01	1.03
Alcohol Use	0.17	***	0.04	1.19
Marijuana Use	0.03	**	0.01	1.03
<i>Mesosystem Factors</i>				
Parental Monitoring	-0.09	**	0.03	0.91
Religiosity	-0.11	**	0.04	0.90
Constant	-4.15	***		
F (10, 122)	28.23			
N	4,490			

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

0=No victimization, 1=At least one incident